restricted by M. Paul Gervais, who separates, under the name of *Proboscidea*, those species which have a longer and more pointed snout, such as *E. saxatilis* and *E. villosa*.

6. On the Genus Elaps of Wagler. By Dr. A. Günther. (Reptilia, Pl. XVI.-XVIII.)

One of the most happy generic combinations in Wagler's 'System der Amphibien' is the genus Elaps. He takes as the character of Elaps the grooved fangs in front, which are not followed by smaller and smooth teeth (pp. 193, 283), and thus he not only excludes those non-venomous snakes included by Schneider (Hist. Amphib. ii. p. 289), the first founder of the genus, but by this admirablychosen character he removes also those species of the subsequently discovered genera of Diemansia and Hoplocephalus which Schlegel afterwards united with Elaps. The diagnosis given by Wagler, p. 193, and more fully detailed at pp. 282, 283, is most accurate and definite :--"Body elongate, equally cylindrical; head not distinct from body; tail short, conical; eyes small; scales smooth, equal, those of the vertebral line not larger; subcaudals two-rowed. Mandibulary and facial bones only slightly expansible; grooved fangs in front, without smaller teeth behind." Thus we see the genus Elaps, as given by Duméril and Bibron in their 'Erpétologie Générale,' already fully circumscribed by Wagler; and I am surprised that Duméril, when giving a historical sketch of the genus, does not mention that his predecessor was the actual definer of the genus *Elaps*. Besides, Wagler had already shown that the species coming from the same part of the globe exhibit common characters; and in enumerating the species he divides them into the following sections :---

a. Corpore vittato (ex Asia);

Ex Africa;

 β . Corpore annulato :—

** Ex America :

an arrangement which we see adopted in the "Tableau Synoptique des Espèces," 'Erpét. Génér.' vii. p. 1207, but without reference to the geographical distribution. Australian *Elapes* were unknown to Wagler, it being impossible, without specimens, to trace the genus in the figure given by White, 'Journ. N. S. Wales,' App. p. 259. Snake No. 2.

I need not enter on a detailed description of the mode of life of these Snakes, as it has been already given by distinguished travellers, who all agree in the fact that they belong to the slowest of the tribe, with the most uniform and sedentary life, always living on dry ground in shady places. No other Snakes exhibit such a similarity to *Elaps* in its mode of life, and such a powerless muscular organization, as the *Calamariidæ*; and this is why we so often find the former destroying the latter : the venomous snake is able to overpower the non-venomous, even if larger. Specimens dissected by me exhibited only a small number of eggs. Notwithstanding this sedentary life, and this diminished faculty of propagation, we find the genus *Elaps* spread over all the tropical regions; but each species of one region exhibits a certain number of characters common to species of the same region, and different from those of any second, so that we can at once refer them to their native country. From this circumstance the naturalist, in my opinion, is justified in attributing a generic value to such characters, although they may be subject to variation in another genus, or even in one and the same species. A variation in the number of the rows of scales in the genera Zamenis, Tropidonotus, &c., is of triffing value only, whilst in other genera the relative number of scales is a constant character (e.g. Calamaria, Oxyrhopus). The number of the ocular shields in species of Zamenis, Pituophis, Tropidonotus, varies much; but in the species of Simotes, Liophis, Dromicus, &c. the number of these same shields is part of the generic character. Thus we see that in one group of animals a part of the organization is constant, and forms a positive character, whilst in another group the same part is liable to very considerable modification : and this peculiarity (liability to modification) itself constitutes a character of the group. In every instance where naturalists neglect to make this distinction, and try either to allow modification of a naturally fixed character, or to fix modifications of a naturally variable character as positive ones, artificial groups of animals are established. For instance, the East Indian Simotes is a most natural genus, distinguished by the form of the rostral shield, by the peculiar system of coloration, and by a single anterior ocular-three naturally fixed characters. Now, if we attempt to force the African Snake (Heterodon diadema) into this genus, we must actually modify two of those characters, and the result of this combination is the establishment of an artificial group*. The same is the case if we try to combine this type of a separate genus with Heterodon⁺. On the other hand, two East Indian genera, Oligodon and Simotes, form together a most natural group, having the same arrangement and shape of the shields of the head, the same form of the body, and even the same system of coloration-three naturally fixed characters; but the dentition in these two genera of snakes is liable to variation. Now, if we consider the latter character a fixed one, so as to become that of families, the result is the artificial distant separation of those closelyallied genera from one another.

I have made these remarks to show, that to obtain a natural system of genera, we cannot rigidly adhere to certain preconceived constant characters, but we must apply them as they are made obvious by nature itself. Let us apply these views to the illustration of the genus *Elaps* of Wagler. Here we see that all the East Indian species are distinguished from those of the other parts of the world by a more slender, vermiform body, and by two longitudinal series of scales fewer in number than in the others. As Wagler rightly observed, the ornamental colours¹ on the upper parts of the body have a tendency to form longitudinal bands (*corpore vittato*); on the

† Dum. et Bibr. vii. p. 26.

^{*} Catal. Colubrine Snakes, p. 26.

[‡] In contradistinction to the ground-colour.

belly they are arranged in cross-bars, sometimes reaching on to the sides, and interfering with the bands on the back. But this latter character of the coloration not being constant, as *E. calligaster* shows a tendency to vary in coloration, I consider the difference in the number of the scales as more important; and the presence of thirteen rows of scales is, I believe, sufficient to determine any species as being East Indian.

All the species of *Elaps* from other tropical parts have fifteen rows; and the American and Australian species agree in another point, that the ornamental colours of the upper and lower parts are not separated into two systems of different direction, but are united, forming rings round the whole body with regular interspaces. But the nasal shield in the American species is constantly separated into two with the nostril between them, the same shield being single in the Australian species, and pierced by that opening. Lastly, the African species deviates in more than one respect. With the same number of scales, and with the same single nasal as in the Australian, it exhibits only one posterior ocular shield, the head being generally more depressed. The ornamental colours, being in all other species of *Elaps* arranged with a certain regularity, are here so irregularly and so variably disposed, that distinct cross-bands seldom appear on the belly and sides; the pure ground-colour often predominates along the medial line of the back.

Thus I divide the genus *Elaps* of Wagler into the following genera, which correspond with the natural divisions of the earth's surface.

A. With thirteen rows of scales.

1. Callophis. East Indies.

B. With fifteen rows of scales and a, with a double nasal shield :

2. Elaps. Tropical America.

b, with a single nasal shield and a, with two posterior oculars :

3. Vermicella. Australia.

 β , with one posterior ocular :

4. Pæcilophis. Africa.

A. CALLOPHIS.

Elupidæ with very slender and cylindrical body, with short tail, and with depressed head, not distinct from neck. No other tooth behind the fang. Thirteen rows of scales. Anal entire. Two nasals, nostrils placed between them; six (exceptionally seven) upper labials; one anterior, two posterior oculars. Colours of the upper parts arranged in longitudinal streaks.—East Indian region.

The following species are known :---

1. CALLOPHIS BIVIRGATUS (Schleg.).

Elaps bivirgatus, Schleg. Ess. p. 451, pl. 16. f.10, 11; and Abb. taf. 47.

Elaps flaviceps, Cant. (Spicil.) Catal. p. 109.

Java, Borneo, Sumatra, Malayan peninsula, Pinang.

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In this species the external band only is subject to variation, sometimes occupying two series of scales, sometimes being very narrow, and nearly obsolete.

2. Callophis intestinalis (Laur.).

Aspis intestinalis, Laur. Syn. Amph. p. 106.

Elaps furcatus, Schleg. Ess. p. 450, pl. 16. f. 12, 13; and Abb. taf. 46. f. 1-8.

This species is subject to great variation.

a. Javanese variety (Pl. XVI. fig. B), figured by Schlegel, brown, with three yellowish lines,—one occupying the vertebral series of scales, and forked on the head, and each of the two others running along the meeting line of the two outer rows. There is sometimes, moreover, another reddish-brown line between the third and fourth outer rows. The ground-colour of the belly is stated to be pale green during life. The lower side of the tail is generally uniform, without black cross-bands. The tail appears to be shorter, with a thicker conical tip.

Java.

There is in the British Museum a specimen, said to have been procured at Hong Kong. It is nearest to this variety, but has two black cross-bands on the tail.

b. The Malayan variety (Pl. XVI. fig. C) is well described by Cantor, Catal. p. 107; but this naturalist confounds the ground-colour with ornamental colour. In the 'Indian Zoology' of Gray and Hardwicke this variety is figured with the name of Maticora lineata. The vertebral line is rather broader, not continued on the head, and on the tail interrupted by two black rings, which entirely encircle that part; the two outer lines, as in the preceding variety. The reddish-brown line, which occurs in some Javanese individuals only, is here constantly to be found, and is very broad, occupying the whole of the fourth and fifth outer series. Cantor has mistaken it for the ground-colour: but this appears in narrow brownish-black lines only, viz. on the outer half of the first series of scales, on the second and third, and on the sixth. The ground-colour of the belly is stated to be pale citron. The tail is surrounded by two black rings, which, however, are interrupted by the lateral reddish-brown band; it is short, slender at the tip, and gradually tapering.

Malayan peninsula.

A specimen, caught in Labuan, and described in 'Contributions to the Nat. Hist. of Labuan, by Motley and Dillwyn,' Lond. 1855, 8vo, p. 45, appears to agree best with the above variety *.

c. The variety of the Philippine Islands (Pl. XVI. figs. A & a) (mentioned by myself, Catal. Col. Snakes, p. 230) perfectly agrees in the form of the tail with that of the Malayan peninsula; but the colo-

^{*} In the work mentioned above, some species of Snakes are excellently represented, but not properly determined :--Plate (p. 46) with the name of *Dendrophis picta* represents *D. caudolineata*; Plate (p. 48) with the name of *Dipsas fusca* represents *D. trigonata*; Plate (p. 49) with the name of *Calamaria brachyorrhos* represents *Simoles purpurascens*.

ration is so modified, as, I think, to have caused Duméril to establish a new species, Elaps trilineatus (Erp. génér. vii. p. 1227). The black abdominal bands of the other varieties here become rings, encircling all the body, but interrupted by the two reddish-brown bands. The yellowish vertebral line occupies one series of scales and two half series, being broken up by those black rings; this line is interrupted on the head by the brown colour of the occiput and crown; but both the ends of the fork into which that line terminates in the first variety are visible, forming on each side a yellowish streak from above the eye to the side of the muzzle. The two lateral brownish-red streaks of the former variety are likewise present, and continue uninterrupted from the occiput to the tip of the tail. The narrow yellowish outer lines of the former varieties are scarcely visible. The tail is surrounded by two rings, and a third, incomplete, middle one. Duméril mentions the specimen of the Paris Museum as coming from the west coast of Sumatra; that of the British Museum was brought by Mr. Cuming from the Philippine Islands.

3. CALLOPHIS GRACILIS, Gray. Calliophis gracilis, Gray, Ind. Zool. f. 1-3. Elaps nigromaculatus, Cant. Catal. p. 108. Penang.; Singapore.

4. CALLOPHIS UNIVIRGATUS, Gthr. (Pl. XVII. figs. A & a.) *Elaps univirgatus*, Gthr. Catal. p. 232.

This new species from Nepal, the most northern known at present, may be readily distinguished by the black head, with yellowish cross-band behind the eyes, and by the black dorsal streak. The descriptions of the two varieties given in my Catalogue I complete now with the figures. Coming from the same part of the East Indies, they are not climatic varieties; I rather think the difference in the colour depends upon the sexes, although I have not been able to make this out by dissection, on account of the condition of the internal parts.

5. CALLOPHIS TRIMACULATUS (Daud.). (Pl. XVI. fig. E.)

Russell, Ind. Serp. i. pl. 8.

Vipera trimaculata, Daud. Rept. vi. p. 25. Elaps trimaculatus, Merr. Tent. p. 143; Schleg. Essai, p. 449. Coluber melanurus, Shaw, Zool. iii. p. 552. Tenasserim.

We are informed by Russell, who discovered this species, which he founded on a single specimen (and a second has not occurred), that he deposited it in the British Museum. I have been fortunate enough to find this original specimen, which, although the notice of its origin has been lost, so completely agrees in all the details with Russell's description and figure, that any doubt of its individuality appears to be removed. It proves to be different from the Snake described by Cantor as *Elaps melanurus* (Shaw), and named by myself *Elaps maculiceps*. Schlegel, to whom the species was known by Russell's work only, attributes to it a black vertebral line; but Russell only mentions some dots on the vertebral line, and several narrow fillets on the sides. These markings, however, have now disappeared, whilst the black coloration of the head and the spots on the tail are still visible.

The diagnosis of this species will be—Belly uniform, without any spots; body above olive, uniform or with narrow lateral fillets; head above, occiput, and neck black, with some yellowish spots symmetrically arranged; tail beneath chequered with black; vertical shield six-sided, rather broad and short; six upper labial shields.

6. CALLOPHIS MACULICEPS, Gthr. (Pl. XVI. fig. D.)

Elaps melanurus, Cantor, Catal. p. 106, pl. 40. f. 6 (not Shaw). Elaps maculiceps, Gthr. Catal. p. 232. Penang.

This is the only East Indian species of *Elaps* with seven upper labial shields; but this anomaly is of no great importance, as it is effected by the posterior upper labial, which is generally elongated in these Snakes, being here divided into two. Cantor's description of the colours is correct in every respect; but the vertical shield of our specimen is elongate, and far from being equilateral.

The diagnosis of this species will be—Belly uniform, without any spots; body above light bay, on each side with a series of distant black dots; head with symmetrical black markings; a black collar; tail beneath chequered with black; vertical shield six-sided, elongate, much longer than broad; seven upper labial shields.

7. CALLOPHIS CALLIGASTER, Wiegm.

Elaps calligaster, Wiegm. Nov. Act. 1835, p. 253, tab. 25. f. 2. *Elaps collaris*, Schleg. Ess. p. 448, and Abbild. taf. 46. f. 10, 11. Philippine Islands.

B. ELAPS.

Elapidæ with slender and cylindrical body, with short tail and with depressed head, not distinct from neck. No other tooth behind the fang; fifteen rows of scales, anal entire (exceptionally bifid); two nasals, nostril placed between them; six or seven upper labials; one anterior, two posterior oculars (in one species one). Colours of the upper and lower parts arranged in cross-bands.

Tropical America.

The following species are known :---

1. ELAPS CORALLINUS, L.

Coluber corallinus, L. Mus. Ad. Frid. i. p. 33.

Elaps corallinus, Wied, Nov. Act. 1820, pl.4; Schleg. Ess. p. 440. pl. 16, f. 1-5.

Brazil, Surinam, New Granada, Guayaquil, Trinidad (West Indies ?).

I consider as varieties of this species—

a. Elaps circinalis, Dum. & Bibr. p. 1210.

b. Vipera psyche, Daud. Rept. viii. p. 320. Elaps psyche, Dum. & Bibr. p. 1212. 2. ELAPS ALTERNANS, Dum. & Bibr.

Elaps alternans, Dum. & Bibr. p. 1211.

3. ELAPS MIPARTITUS, Dum. & Bibr.

Elaps mipartitus, Dum. & Bibr. p. 1220.-New Granada.

Elaps decussatus, Dum. & Bibr. p. 1221, appears to belong to the same species.

4. ELAPS SURINAMENSIS, CUV.

Elaps surinamensis, Cuv. Règne Anim. ; Schleg. Ess. p. 445, and Abbild. taf. 46. f. 9.

Surinam.

5. ELAPS LEMNISCATUS (L.).

Coluber lemniscatus, L. Mus. Ad. Frid. i. p. 34; Schleg. Ess. p. 444, pl. 14. f. 6, 7.

Brazil, Surinam, Caraccas, Columbia, Trinidad.

Varieties of this species are-

a. Elaps marcgravii, Dum. & Bibr. p. 1209.

b. Elaps frontalis, Dum. & Bibr. p. 1223, figured by Guichenot in Casteln. Anim. nouv. ou rares de l'Amér. du Sud, p. 71, pl. 14. This is the Snake first described by Marcgrave, Hist. Nat. Bras. vi. p. 240.

6. ELAPS FULVUS (L.).

Coluber fulvus, L. Syst. Nat. i. p. 381.

Elaps fulvus, Holbr. N. Amer. Herpetol. iii. p. 49, pl. 10; Dum. Bibr. p. 1215.

Southern States of North America, through Central America, to Venezuela.

Variety of this species is

Elaps tristis, Baird and Girard, Catal. p. 23.

7. ELAPS EPISTEMA, Dum. & Bibr.

Elaps epistema, Dum. & Bibr. p. 1222. Mexico.

8. ELAPS BIPUNCTIGER, Dum. & Bibr.

Elaps bipunctiger, Dum. & Bibr. p. 1227.

9. ELAPS DECORATUS, n. sp. (Pl. XVIII. fig. A.)

Body encircled by black rings, always three together, the middle one broadest. Muzzle and a cross-band between the eyes black. Vertical shield broad, five-sided, with a front side broader than the lateral ones, and behind with an obtuse or a right angle.

This species is allied to $Elaps \ lemniscatus$: it differs somewhat in the arrangement of the black rings; but the reason why this species must be separated, is the form of the vertical shield, which in $E.\ lemniscatus$ is much narrower, the front side being shorter than

the lateral ones, and the shield terminating in an acute angle. In general habit the species is scarcely more slender than E. lemniscatus. I count in one of the specimens 196, and in the other 202 ventral plates; in both 19 subcaudals. The shields of the head and the scales do not offer any other peculiarity, except that the sixth upper labial is in direct contact with the occipital, whilst in E. lemniscatus an elongate temporal shield separates that labial from the occipital. There are two nasals; one anterior, two posterior oculars; and seven upper labials; fifteen rows of scales; the anal plate in the older specimen entire, and in the younger one bifid. The muzzle in front, the vertical, superciliaries, and the third, fourth, and fifth upper labials are black; the remainder of the head is red. The neck is surrounded by a broad black collar, in front yellow-edged, and behind separated from a much narrower black ring by a yellow edge also. Then follow, in regular interspaces, fifteen zones (in the younger individual), or sixteen (in the older one). Each zone is composed of three black rings, with two yellow ones between. One of the zones surrounds the tail. The middle black ring is always broadest ; but in the adult individual it occupies three rows of scales only, in the young one four; the outer black rings are as broad as the yellow ones, and occupy each two, sometimes only one row of scales. The red interspaces are nearly of the same extent as the zones; and each scale exhibits a black tip. The extremity of the tail is very blunt, rounded, and black. The total length of the large specimen is 19", the head taking $4\frac{1}{2}'''$, the tail 14'''.

The above description is founded upon two specimens, one of which has been for a long while in the collection of the British Museum; but being only a young individual, and not in a good state of preservation, it has not been introduced into the Catalogue. In the meanwhile Professor Jan has recognized it as belonging to a species for which he has intended the name given above; and finding the same name mentioned in his 'Index of Reptiles of the Milan Museum,' I have accepted it. I am not aware that the species has been described. The other specimen has been purchased for the British Museum, and is said to come from Brazil. The specimen in the Milan Muscum is from Mexico.

10. ELAPS TENER, Baird & Gir.

Elaps tener, Baird and Girard, Catal. N. Amer. Rept. p. 22. Texas.

11. ELAPS FILIFORMIS, n. sp. (Pl. XVIII. fig. B.)

Exceedingly slender. Only one posterior ocular shield. Body surrounded by black rings, always three together; muzzle, and a cross-band between the eyes, black.

This species is as slender as any of the East Indian Elapida; in the number of the ventral plates it even surpasses them. I count 285 ventral, and 38 subcaudal plates. Compared with a specimen of *E. lemniscatus*, which has a head of the same size, it is twice as long. The tail is rather short, but tapering to a fine tip. From all the other American species of *Elaps* it differs in having only one posterior ocular, the eye being very small. The vertical shield is fivesided, with the lateral and posterior sides equal, but with the anterior rather longer; the hinder angle is acute. The nasal appears to be divided into two below the nostril only; the nostril itself is round, open; seven upper labial shields, the sixth of which is separated from the occipital by an intermediate temporal shield. Scales in fifteen rows. Anal shield bifid. A strong fang in front of the upper jaw, and no smaller tooth behind.

It is easy to be seen which parts have been red-coloured during life, and which yellow, slight tinctures of both colours being preserved. The front part of the muzzle and the chin are black; a narrow yellow band crosses the posterior frontals; the following black band reaches to the front part of the occipitals; the remainder of the head is red. The body and tail are encircled by twenty-two zones, each of which is composed of three black rings and two yellow ones between. The anterior black ring of the first zone forms a collar; two of the zones encircle the tail, the tip of which is black. The black rings are nearly as broad on the belly as on the back; the middle one occupies five rows of scales, the outer ones four, the yellow rings mostly two. The red interspaces are as broad as the outer black ones; the scales in these interspaces are uniform, without any spot. The specimen is 17'' long; of which the head takes $3\frac{1}{2}''$, and the tail 15". It is in the collection of the British Museum, and has been procured in Para.

Doubtful American species of Elaps are-

12. ELAPS GASTRODELUS, Dum. & Bibr. p. 1212.

13. ELAPS DIASTEMA, Dum. & Bibr. p. 1222. Mexico.

14. ELAPS ZONATUS, Hallow. Journ. Acad. Nat. Sc. Philad. 1855, iii. p. 35.

Honduras.

15. ELAPS DIVARICATUS, Hallow. *l. c.* p. 36. Honduras.

C. VERMICELLA, Gray.

Elapidae with slender and cylindrical body, with very short tail, and with depressed head, not distinct from neck. No other tooth behind the fang; fifteen rows of scales; anal bifid; one nasal, pierced by the nostril; six upper labials; one anterior, two posterior oculars. Ornamental colours in cross-bands.

Australia.

Only one species is known :---

1. VERMICELLA OCCIPITALIS. (Pl. XVII. fig. B.)

Elaps occipitalis, Dum. Bibr. vii. p. 1220.

Vermicella annulata (Gray), Gthr. Catal. Col. Sn. p. 236.

As I have already stated, this Snake was first figured by White in the Appendix to his 'Journ. N. S. Wales;' then we find it again in the 'Erpétologie générale,' p. 1220, as *Elaps occipitalis**. The description is short, and limited only to the coloration; nothing is said of the scales, shields, or plates, which are so remarkable; the native country is stated to be Rio de Janeiro; and one specimen is doubtfully mentioned as having been procured in New Holland. From this description I was led to consider *E. occipitalis*, D. & B., as a species closely allied to *Elaps corallinus* (Catal. p. 234), and to describe the true *E. occipitalis* as a new form, for which I accepted the denomination of *Vermicella annulata*, written by Dr. Gray on the bottle containing the snakes.

Whether the ground-colour of this snake is red, as in the South American species, or white, still remains a question. White, who probably saw the animal alive, figures it as white, and does not mention it as being red.

D. PECILOPHIS.

Elapidæ with slender and cylindrical body, with very short tail, and with depressed head, not distinct from neck. No other tooth behind, the fang; fifteen rows of scales; anal entire; one nasal, pierced by the nostril; six upper labials; one anterior, and one posterior ocular. Ornamental colours distributed in irregular spots.

African region.

1. PECILOPHIS HYGIÆ (Schleg.).

Coluber lacteus, L. Mus. Ad. Frid. t. 18. f. 1. Elaps hygiæ, Schleg. Ess. p. 446, pl. 16. f. 14, 15; Dum. & Bibr. p. 1213.

S. Africa.

2. Pœcilophis dorsalis (Smith).

Elaps dorsalis, Smith, Illustr. Zool. S. Afr. App. p. 21. S. Africa.

Duméril, in the 'Erpétologie générale,' continues to place that unfortunate species of Merrem, Elaps lubricus, figured by Seba (ii. 34. 4; 43.3; 62. 4), with the South American species E. lemniscatus in front, and with the Australian Vermicella occipitalis behind. It is placed in the genus Naja, first with the strange name of N. sommersetta, by Smith, and in more recent times as N. fula-fula, by Bianconi. Merrem's figure (Beitr. p. 9, pl. 2) is very easy to be recognized; but the description is incorrect in several points. Schlegel properly separates it from Elaps, and replaces it in Naja, according to his system. In the 'Illustrations of the Zoology of S. Africa,' by A. Smith, it is mentioned under two names,—first as Aspidelaps lubricus, and then as Cyrtophis scutatus. After having been thus strongly recommended as the type of a new genus, it is referred, after all, in

^{*} I am indebted, for the identification of this species with *Vermicella annulata*, to Professor Jan, who has recently visited the British and Parisian collections.

the 'Erpétologie générale,' to *Elaps*, which is the least fit for it. Finally, I have tried in my Catalogue to give a proper diagnosis for the name *Cyrtophis*, given by Sundevall, and published by Smith; and if I add that the same Snake is the *Coluber latonia* of Daudin, and the *Natrix lubrica* of Laurenti, the synonymy will be complete.

7. LIST OF THE COLD-BLOODED VERTEBRATA COLLECTED BY MR. FRASER IN THE ANDES OF WESTERN ECUADOR. BY DR. A. GÜNTHER.

SAURIA.

1. Anolis æneus.

2. ? Anolis cristatellus, Dum. & Bibr.

3. Enyalius laticeps, Guichen. in Casteln. Anim. nouv. ou rares, Rept. p. 20, pl. 5 a, b.

4. Liocephalus ornatus.

5. Cercosaurus gaudichaudi.

6. Microphractus humeralis, n. g. & sp.

7. Proctoporus pachyurus, Tschudi, Faun. Per. p. 43, taf. 2. f. 2. = Riama unicolor, Gray, P. Z. S. 1858, p. 446, pl. xv. fig. 2.

8. Amphisbæna fuliginosa.

Ophidia.

1. Rhabdosoma elaps, n. sp., Gthr. Catal. Col. Sn. p. 241.

2. Liophis tæniurus.

3. Erythrolamprus venustissimus, var. D, Gthr. l. c. p. 48.

4. Xenodon severus, var. C, Gthr. l. c. p. 54.

5. Spilotes pæcilostoma.

6. Herpetodryas fuscus.

7. Leptognathus catesbyi, var., Gthr. l. c. p. 251.

8. Oxyrhopus petolarius, var. sebæ.

9. Leptodeira annulata, Fitz. Dipsas annulata, Schleg.

10. Craspedocephalus atrox, var. leucurus, Dum. & Bibr. vii. p. 1508.

BATRACHIA.

1. Cyclorhamphus marmoratus.

2. Bufo intermedius, n. sp., Gthr. Catal. Batr. p. 140, pl. ix. f. A.

3. Bufo agua. The male exhibits all the warts covered with spines. Some of the black markings are very conspicuous, as is generally the case in young specimens from Brazil.

4. Otilophus margaritifer.

1

5. Hylodes conspicillatus, n. sp., Gthr. l. c. p. 92.

6. Hylodes lineatus, Schneid., Gthr. l. c. p. 91.

7. Hyla fasciata, n. sp., Gthr. l. c. p. 100, pl. 7. f. D.

8. Hyla rhodopepla, n. sp., Gthr. l. c. p. 112, pl. 7. f. E.

9. Nototrema marsupiatum, Dum. & Bibr., Gthr. l. c. p. 115, pl. 10. f. B, B', B''.